

REMARKS/ARGUMENTS

The Examiner rejected claims 4 and 5 under 35 U.S.C. 102(a) as being anticipated by Lee et al., U.S. Patent Pub. No. 2002/0066729. Lee does not teach all the limitations of claim 4. More specifically, Lee does not teach “a means to monitor the voltage of the commercial power supply comprising an input current detector...characterized in that loss of voltage from the commercial power supply is determined and the controller stops the high-frequency inverter if the detection value of the input current detector has a predetermined difference from a target value continuously for a given time.” Referring to Figure 1 and to paragraphs [0029] and [0030] of Lee, Lee discloses a low voltage detector part that measures the incoming voltage. If the incoming voltage is lower than a predetermined lower limit then the controller part interrupts the incoming power. Lee also discloses a current detector part. But the current detector interrupts power if the current into the transformer exceeds an allowable current value. The current detector is for overload protection and not a means to monitor the incoming voltage of the incoming power supply as in Applicant’s invention. Thus, Lee does not teach a means to monitor incoming voltage comprising an input current detector. Therefore, Lee does not teach all the limitations of claim 4.

Claim 5 depends from claim 4, thus, all arguments pertaining to claim 4 are equally applicable to claim 5 and are herein incorporated by reference.

The Examiner rejected claims 4 and 5 under 35 U.S.C. 103(a) as being unpatentable over Aoki, U.S. Patent No. 4,900,884 in view of Lee et al., U.S. Patent No. 6,335,520.

The combination of the references still does not teach all the limitations of claim 4. More specifically, the combination of the two references does not teach “a means to monitor the voltage of the commercial power supply comprising an input current detector...characterized in that loss of voltage from the commercial power supply is determined and the controller stops the

high-frequency inverter if the detection value of the input current detector has a predetermined difference from a target value continuously for a given time.”

First, as previously mentioned in Applicant’s Amendment D, Aoki teaches a means to interrupt the inverter circuit by the detection of an improper load on a top plate. Referring to column 8, line 8 through column 9, line 6 of Aoki, Aoki discloses that if an improper load, such as an improper aluminum pan or a fork or knife is placed on the top plate (see column 8, lines 20–22) the operation of the inverter circuit will be interrupted (see column 9, lines 4–5). In addition, column 8, lines 36–42 explain that when a proper pan is placed on the top plate the input current to the inverter circuit is increased. Conversely, column 8, lines 57–59 explain that when the pan is deviated from its initial position on the top plate the input current to the inverter is decreased. Finally, column 9, lines 2–5 explain when a calculated value is smaller than the set value the microcomputer determines that the load is improper and interrupts the inverter circuit. Thus, Aoki teaches interrupting the inverter circuit by detection of an improper load. Aoki, therefore, does not teach interrupting the inverter by monitoring the voltage of the commercial power supply with a current detector.

Second, Lee teaches a voltage detector to protect various elements by suspending operation of the inverter. Referring to column 7, line 62 through column 8, line 10 of Lee, Lee discloses how a low voltage detector, which measures voltage, suspends the operation of the inverter when the AC input voltage is extremely low. Thus, Lee measures the incoming voltage. Lee, therefore, does not measure the incoming current to determine the loss of voltage from the power supply.

Therefore, the voltage detector of Lee if combined with Aoki will measure the incoming voltage. The voltage detector of Lee will not cause loss of voltage to be determined by the input current detector of Aoki. Therefore, simply combining the voltage detector of Lee with the input


current detector of Aoki does not render the limitation of determining the loss of voltage by detection of the input current. Therefore, the combination of Lee with Aoki does not teach all the limitations of claim 4.

Claim 5 depends from claim 4, thus, all arguments pertaining to claim 4 are equally applicable to claim 5 and are herein incorporated by reference.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 34698US1.

Respectfully submitted,

PEARNE & GORDON LLP

By: 
Michael W. Garvey – Reg. No. 35,878

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

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